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承认书

SPECIFICATION FOR APPROVAL

客户 <u>Customer</u>	恒晨
项目名 <u>Project</u>	CSD0467-AC
频段 <u>Band</u>	2.4-2.5GHz4.90-5.85GHz
SBR 料号 <u>Part number</u>	FAWF11C4970AD175
版本 <u>Version</u>	A0
射频 <u>RF</u>	
结构 <u>ME</u>	
业务 <u>Sale</u>	岳磊
日期 <u>Date</u>	2019-8-14
客户项目名称 <u>Customer project name</u>	CSD0467-AC
客户料号 <u>Customer part number</u>	2A6.C.970AC1250S189

承认人签章 Signature		
制定 <u>Responsible</u>	审核 <u>Approve</u>	客户确认 <u>Confirm</u>
李瑶娜		

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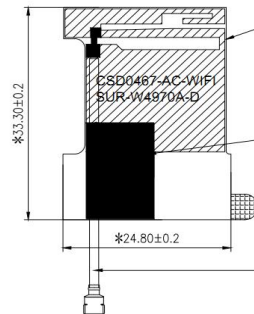
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FM: SBR-QR-RD-37 REV: A1

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1. Antenna picture

The report mainly provides the test status of the electrical properties parameters of **CSD0467-AC** . The **CSD0467-AC** antenna is a **2.4-2.5GHz4.90-5.85GHz** Band . The antenna Picture and assembly are shown below.



Antenna picture & assembly picture

2. Antenna Test Equipment Introduction

Test of antenna input characteristics using **Agilent E5071C** and **Agilent 5062A** vector network analyzer; The radiation pattern of the antenna are tested using the Satimo starlab 3D near field Anechoic Chamber , and the instrument is used to agilent8960 E5515 and Agilent E4438C. The test coordinates of the darkroom are as follows:

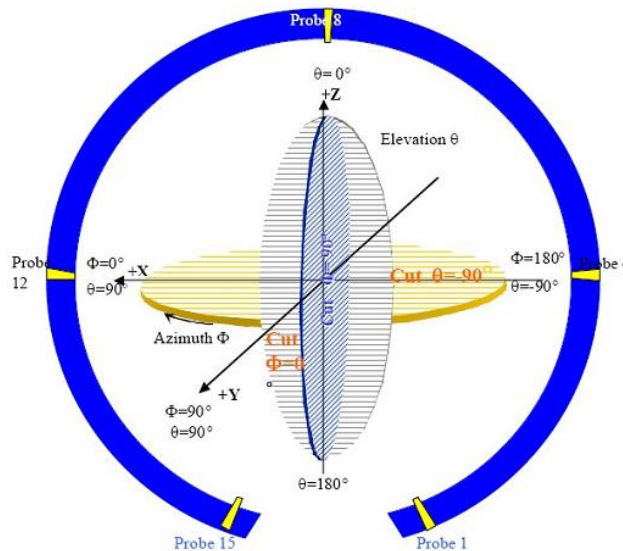


图 4 3D 微波暗室测试坐标系 (back view)

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3. Electrical Specification

3-1 Frequency Requirements

CSD0467-AC Antenna working band at **2.4-2.5GHz****4.90-5.85GHz** ; Resonate in this frequency band.

3-2 Passive S11 parameter

Measuring Method is a 50 Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the S11 parameter, Keeping this fixture away from metal at least 20cm.



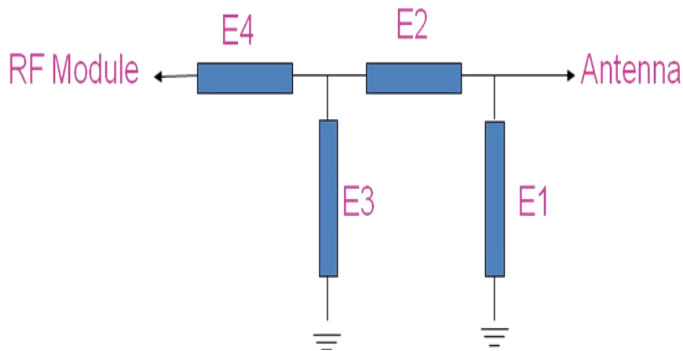
VSWR

Frequency(MHz)	2400	2450	2500	5150	5850
VSWR	1.4	1.1	1.4	1.8	1.9

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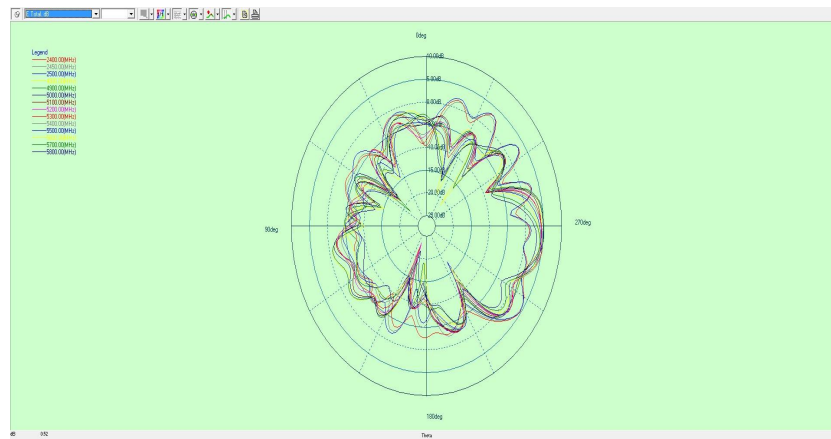
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3-3 Antenna Matching Network

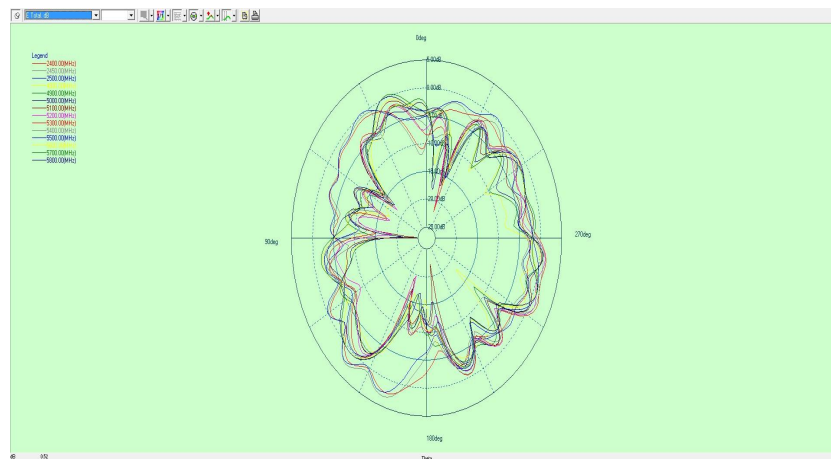


Element	Capacitor	Inductor
E1	N/A	N/A
E2	N/A	N/A
E3	N/A	N/A
E4	N/A	N/A

3-4 2D Pattern



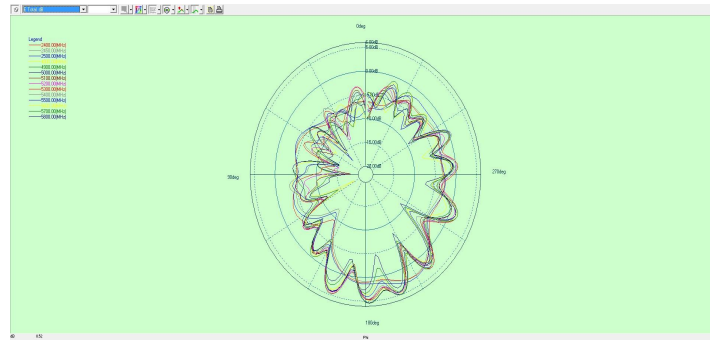
X-Z Plane



Y-Z Plane

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**X-Y Plane**

3-5 Efficiency and Gain Value

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	39.5	1.08
2450	40.3	1.20
2500	39.8	1.10
5100	35.3	1.47
5800	33.5	1.56

3-6 OTA

Test Equipment:	R&S CMW270			
Test Condition:	3D chamber			
Band	Wireless Protocol	Channel	TRP(dBm)	TIS(dBm)
WIFI	802.11 b/11Mbps	1	11.61	-66.22
		6	12.10	-65.95
		11	11.99	-65.23
	802.11 g/54Mbps	1	9.17	-54.95
		6	9.59	-55.77
		11	9.45	-54.63
	802.11 n/65Mbps	1	8.45	-51.21
		6	8.50	-51.40
		11	8.59	-51.28
	802.11 a/54Mbps	36	8.36	-65.78
		100	8.43	-68.54
		165	9.76	-69.41

4. Mechanical Specification:

Mechanical Configuration (Unit: mm)

The appearance of the antenna is according to drawing Figure 8

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